

Guidelines for Teaching and Learning

Number 7



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Excavating the Archives

Archive Archaeology and
the Higher Education Sector

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Foreword

The Archive Archaeology project was funded by the Higher Education Council for England's (HEFCE) Fund for the Development of Teaching and Learning, Phase 5 (FDTL5).

It was a collaborative project led by Professor Clive Orton and project managed by Gustav Milne of UCL Institute of Archaeology with John Shepherd, UCL Institute of Archaeology, Dan Hicks, Department of Archaeology and Anthropology, Bristol University and Robin Skeates, Department of Archaeology, Durham University. The focus is not upon the training excavation, archaeology in situ, as it were, but on the processes, procedures, curation and study of material in the archive: archaeology ex situ.

The project received the active support of the London Archaeological Archive and Research Centre, Museum of London, Somerset County Council, Wiltshire County Council, and the Old Fulling Mill Museum of Archaeology, Durham University.

The project team would also like to thank the Higher Education Academy's Subject Centre for History, Classics and Archaeology for their support and also the other members of our Steering Committee, our first chairman, Prof. Alan Lord (UCL), our evaluator, Hedley Swain (MLA), and our additional committee members, Glynis Cousins (HEA) and Roy Stephenson (MoL).

Finally we would like to thank the students of UCL Institute of Archaeology, Bristol University and Durham University for their enthusiastic support in helping us to pursue the objectives of this project.

Professor Clive Orton
Archive Archaeology Project Director

Contents

Foreword	Clive Orton	3
Contents		4
1	Introduction	5
2	Addressing a priority issue	7
3	The strategic context for Archive Archaeology resources	10
4	Archive Archaeology in universities	12
5	Teaching and Learning with Archaeological Archives case studies	16
6	Teaching and Learning with Sites & Monuments Records	21
7	Teaching and Learning with Museum collections	23
8	Graduate progression	25
9	Conclusion and Summary Recommendations	26
10	Further Reading	29
Appendices		
A	On-line documents	31
B	NOS, NVQ and QAA standards	32
C	Learning new <i>ex situ</i> fieldwork skills	37

1 Introduction

'Archaeology' is all too often seen as synonymous with 'excavation'. This misconception is unwittingly perpetuated by the content of television programmes that are often only concerned with the initial discovery in the field. It is also prevalent in developer-funded work, where the budgets of client-led projects frequently focus more on the excavations themselves, leaving often extremely limited resources for post-excavation research and interpretation.

However, a more accurate definition of 'Archaeology' is the *study* of the physical remains of our past, and should include work that takes place in archives, laboratories, museums and libraries: it is these processes that ultimately produce the results upon which our subject progresses. With this in mind, the Archive Archaeology Project was developed to re-evaluate how archaeology is taught in our universities. This initiative re-emphasises the value of the hands-on study of material held in archaeological archives, the physical *ex situ* product of formal controlled evaluations and excavations in the field, and in museum collections as well as in Sites and Monuments Record centres (SMRs) or Historic Environment Record centres (HERs). Its principal objective is to draw the student's attention to the study and research potential of such resources and generally increase awareness of the issues surrounding archival collection, management and accessibility.

Most universities would agree that a programme of Fieldwork/ Training for archaeological students should not be solely concerned with a 'training excavation', but with developing well-rounded archaeologists. Students should be familiar with not just with excavation procedures, but also with post-excavation processing, artefact studies, archiving, the analysis of field records, the re-assessment of previous studies and the publishing of projects. It is with these elements, rather than training excavations as such, that this report is principally concerned. The key questions are really how to balance the focus and when to introduce all those elements into the crowded curriculum.

The report is aimed not just at archaeology subject providers in the university, but also at all those working in museums and SMRs/HERs who have an interest in increasing access to their collections. It presents the core findings of the survey phase of the Project, relating them to national policy, learning outcomes and transferable skills.

The current state of Archive Archaeology teaching is then summarised across the undergraduate teaching programmes in archaeology departments in England. At the time of the survey in 2005-06, this was variable but it was generally accepted that the objectives of the Archive Archaeology Project were positive. General recommendations for the implementation of Archive Archaeology teaching in the curriculum have been made and, for the most part, many departments felt they could adapt the current curriculum to generate the re-emphasis required by this Project.

This report makes detailed consideration of teaching and learning issues related to museum collections, Sites and Monuments Records and at curated archaeological archive centres. Initially, this is from the perspective of the undergraduate, but it then goes on to examine the graduate use of Archive Archaeology resources. As should be expected, graduates can make greater demands on such

resources. Whereas undergraduates require more training in the use of such facilities, graduates, once access issues are overcome, are more concerned with qualitative matters regarding the data itself.

The preservation of *ex situ* resources such as archaeological archives, and their associated SMR/HER data, is a subject that has attracted a lot of attention over the last two decades (e.g. Merriman and Swain 1999). As museum stores become full and little money is available for the creation of new depots, either local or regional, further justification must be made by their users to ensure their curation and accessibility. Increased use by the HE sector is one demonstrable way to emphasise their importance. It is therefore hoped that, by expanding the student demand for access to these resources, the universities will give our colleagues in the Museum and HER sectors the tangible support needed (through the markedly increased use of those collections) to win the funds required to develop those resources. This will in turn further benefit university-based research.

For further detail, please consult the project's website at <http://www.ucl.ac.uk/archaeology/archive-archaeology/index.htm>. URLs to relevant documents and text on this site are given throughout this paper (see Appendix A).

2 Addressing a priority issue



The Archive Archaeology Project was set up to address a range of current issues. From the Higher Education perspective, it was concerned with themes highlighted in the 'Archaeology Needs Survey' compiled by the Higher Education Academy, Centre for History Classics and Archaeology, following the Quality Assurance Assessment Review report on the subject. Some of the elements discussed there and considered here are:

Employability

Improving employability skills for students;

Teaching and Learning

Developing and implementing a broad range of flexible learning approaches;

Learning Resources

Developing clearer and more effective resource strategies; enabling better access to learning resources for all students; developing the use of collections to support effective teaching and learning.

However, many of the resources and collections that the Project concerns itself with are held by institutions outside the University campus; local authority museums and Site & Monument Record Centres in County Planning Departments, for example. These external agencies have their own issues, agendas and challenges to contend with.

In February 2002, for example, the Museum of London opened the London Archaeological Archive and Research Centre (the LAARC). At the core of the LAARC are the physical, primary remains and records for over 5000 archaeological interventions and excavations carried out in Greater London over the past seventy-five years. The size and scale of this resource is staggering – over 150,000 boxes of artefacts and environmental remains sitting on 10km of shelving, 300m of documentation and site records – a total, crude volume of over 2500 cubic metres of archaeological material and their supporting stratigraphic information. The Swain report of 1998 suggested that it amounted to some 20% of the national total of archaeological archive then in existence. It is thus all the more surprising that in the late 1990s the London archives had become increasingly inaccessible and even faced imminent closure.

'I had not realised the degree of detail and effort required to make an accessible and usable archive.'

Alex, student, 2007

'Before I started the course on the archaeological archive at LAARC expected that I would just be washing bits of pottery and animal bone for three days.'

Yarcas, student, 2007

'To be honest, I didn't really know what an archaeological archive was or how it worked so this course has been quite an enriching experience.'

Eva, student, 2007

The two main purposes of establishing the LAARC were to secure the long-term curation of the collection, and to offer access to the widest possible range of users: professional, amateur, young and old. The LAARC staff took the lead in facilitating this access, organising open days, improving the collection's documentation and assisting researchers and individual visitors. It is proving to be a great success, offering space and resources, from a practical point of view, for the storage and research of excavated material and their records. The archaeological archive for the London region has now become a viable and accessible resource, although work continues to enhance the collections.

A number of user-groups were identified, ranging from schools to informed members of the public, to special interest groups and local societies; staff and students from the Higher Education and Further Education sectors and professional contract archaeologists. Internal evaluation of the take-up by these varied groups proved interesting. Whereas individual researchers, classes of school children or groups society members took full advantage of the physical resources themselves, the interest and involvement of the HE and FE sectors was disappointingly sporadic. In the main, university

engagement with the LAARC tended to be initiated by a member of staff who already had an awareness of the role and contents of the LAARC. The result has been that, whereas some of the HE institutions in London do make use of the Museum's archaeological collections for teaching and learning exercises, this tended to be in an *ad hoc* fashion and the resources have not been made available to all students of archaeology in the London region.

This situation was not unique to London but can now be shown to be the case across the country. To rectify this situation, University College London established a programme of work designed to examine the scale of access by archaeology students to these archaeological resources in England and the formal use made of these resources in the curriculum itself. The resulting project was then extended to include two closely-related programmes conceived in Bristol – considering the use of Sites and Monument Record centres in the university curriculum – and in Durham, where the study focussed on the use of museum collections.

The primary working principles of the project are:

- That the experiences encountered and the skills acquired while working with archives, collections and SMR/HER resources are valuable tools for the student (see Appendix B);
- That Archaeological Archives, Museum collections and SMR centres provide immensely valuable and highly significant learning opportunities for students (and staff);
- That a working knowledge of past and current post-excavation practices and procedures is important in its own right, and in the development of research skills (see Appendix C);
- That a familiarity with modern post-excavation practices and procedures greatly improves the quality of fieldwork skills;
- That a familiarity with the material evidence itself greatly improves the quality of fieldwork and finds-recognition skills.

(With regard to museum collections, there is an overlap here with CONTACT, our sister project also funded by FDTL5. This supports teaching initiatives in Classics and Archaeology departments in England and is aimed at bringing students closer to material culture. The scheme is based at the University of Sheffield, operating with partners in the Universities of Leicester and York. It aims to address perceived problems in teaching material culture in archaeology and classics through creating both real and virtual networks of students, expertise and material. The real networks bring students into contact with material with the mediation of experts, and the virtual networks back up these experiences with virtual material and expertise tied into the students' real experiences. For more information see their website at www.contact.group.shef.ac.uk.)

3 The strategic context for Archive Archaeology resources

Since 1997 the Government has introduced a social agenda that includes the right of everyone to have access to, and engage with, the natural, built and cultural heritage that represents the identity of our nation. A series of policy documents have been produced arguing that archaeological sites, monuments, libraries, museums, archives and collections are 'ours' to explore and enjoy. Every effort should thus be made to take the archaeological heritage to the community and help them to appreciate, enjoy and understand their significance. It was seen as particularly important to engage with groups that traditionally have not visited or used aspects of the heritage, including historic sites, libraries, museums and archives. It also specifically encouraged the greater use of heritage facilities such as museums and archives by the Higher Education sector, a theme addressed head-on by the Archive Archaeology Project.

Listening To The Past: Speaking To The Future (MLA 2004)

dglab.cult.gva.es/ArxiuRegne_v/documents/ArchivesTaskForce.pdf

'Archives provide the bedrock for our understanding of the past. They show us, and future generations, how we came to be and what we are as a nation, a community or an individual'.

Vic Gray, Archives Task Force Member

A key element of this report of the Archives Task Force is the proposal for a digital gateway to lead users of all ages to discover, use and enjoy public, private, business and community archives quickly and easily. It also makes recommendations to modernise public sector archives and develop the skills and expertise of professional archivists. It particularly emphasises:

- the need to maintain all historical archives to a high quality;
- the importance of making them accessible to all and achieve maximum public benefit;
- the need to digitise the most important original documents, objects and the artefacts;
- the importance of individuals and schools being able to engage with, and use, their own local archive;
- the need to increase community participation in archive activity with a particular focus on engaging with 'hard to reach' communities.

Collections For The Future (MA 2005)

(www.museumsassociation.org/asset_arena/text/ns/policy_collections.pdf)

This report of a Museums' Association Inquiry, supported by DCMS, into the future of museum and gallery collections highlights that collections.....

'have the ability to transport and inspire people : collections can be exotic, intriguing, affirming, pleasurable and challenging. They stir emotions and stimulate ideas'.

The report reviews the current situation and sets out proposals 'that will ensure people have more opportunities to engage with museum collections and that those collections are as rich, diverse and inspiring as they can possibly be'.

The report is split into 4 sections:

- engagement with collections
- growing the collections
- strengthening the museums sector
- moving forward.

The emphasis throughout is about raising awareness of the value and importance of collections and making them more accessible to all. Collections are part of the '**public realm**': people have a right to cultural entitlement as much as to education and health.

Access To Archaeological Archives (AAF 2003)

(<http://www.britarch.ac.uk/archives/>)

The Archaeological Archives Forum commissioned a study to define the costs associated with the storage of, and provision of access to, existing archaeological archives in museums. Based on an evaluation of 12 museums this found there was considerable variation in the level of access provided by the different authorities studied that included:

- full access
- staff on site
- on-site study
- handling facilities
- public by appointment
- occasional public tours
- digital access.

4 Archive Archaeology in universities

Project methodology

The Project Officer contacted all the University Archaeology departments in England to ascertain their approaches to the teaching of Archive Archaeology, in particular their interaction with collections, archaeological archives and SMR/HER centres. The Phase 1 Survey comprised a detailed questionnaire, followed up by the Phase 2 Survey, a series of personal interviews with representatives of a number of departments. This work progressed in tandem with the three pilot projects conducted by the Project teams working in Bristol, Durham and London, characterising the learning outcomes and teaching processes associated with work with a) SMRs and HERs, b) museum collections and c) archaeological archives, as presented in Chapters 5, 6 and 7.

Phase 1 Survey

University department questionnaire

Even though the survey conducted in 2005 had a low response rate (30% of a total of 24 departments) it did reveal some valuable general observations with regard to the position of Archive Archaeology in English universities. For example:

- 1 Very few departments among the respondents actively encouraged students to interrogate HERs, either on-line or physically, although all departments make their students aware of such resources.
- 2 Two respondents stated that they only came into contact with HERs, archives or collections when the dissertation subject selected by a student required access to such sources. Although there was a general awareness of the research potential in HERs, archaeological archives and museum collections, the exploitation of those resources was limited by departmental resources, staff availability and time.. The approach, therefore, was reactive.
- 3 Access to on-line resources was welcomed and many departments look forward to expansion in this field. Physical access was appreciated but there were concerns about the access and availability of a) the archives and collections themselves and b) invigilation and support costs. Increased demand would, of course, also put pressure on the resources of externally-funded Museums and HERs.
- 4 Other than Bristol, Durham and London, no English department ran formal, structured workshops dedicated to post-excavation processes and methodologies with material held in external institutions.
- 5 Very few departments encouraged the compilation of a portfolio, or report on resource enhancement work in archives, record centres or museum collections as an assessed option as part of the degree. Those that did allowed such studies to be presented as extended essays or dissertations.
- 6 Technical reports and dissertations were encouraged on the contents of archives, record centres or museum collections, both at undergraduate and graduate level.

A closer analysis of the teaching programmes of archaeology departments in England, as published online and through their prospectuses, suggests that many of the components and issues that make up 'Archive Archaeology' are included in general 'post-excavation' studies and analysis. However, this teaching often focuses upon current fieldwork and excavations conducted by the department rather than on material held in museums from excavations carried out in the past. This is understandable and valuable in its own way, but is arguably limited in its scope.

The complete results of the questionnaire survey can be found on the AA project website: (e.g.) <http://www.ucl.ac.uk/archaeology/archive-archaeology/deptsurvey-ph1.htm>

Phase 2 Survey

A second survey was initiated, comprising a series of face-to-face interviews and telephone conversations with representatives from every archaeology department in England. The aim was to repeat the questions asked in the questionnaire, but to develop the discussion to consider the specific issues experienced by each department. The general points already identified in the Phase 1 Survey were confirmed, and a number of new issues were raised, especially in connection with the use of external resources.

- 1 There is a general consensus among departments that the teaching of archive archaeology – namely the hands-on use and study of data and material held by museums and HER centres, would indeed be beneficial to students. Many universities can demonstrate that students are already exposed to such collections and related concepts, but the majority readily admit that more could be done in this area of teaching.
- 2 There are, however, circumstances that prevent a 'one-size-fits-all' approach. The time devoted to fieldwork varies considerably throughout the country – ranging from ten to seventy days – so those departments with a lower fieldwork expectation have little leeway to develop complex courses or sessions related to Archive Archaeology matters outside the classroom. Also, a number of departments have undergraduate student groups comprising both single and joint honours students. Time restraints within the existing curriculum challenge many departments but are even more complex for joint honours groups.
- 3 It was evident that there was an overlap in terms of definition between 'Archive Archaeology' and 'Post-Excavation Analysis'. However, the former was often more closely associated with the study of material in the public domain held by museums and HER centres, the latter with more recently excavated material and sites.
- 4 There was also a general belief that the archaeological and research principles fundamental to 'archive archaeology' could be learnt through most post-excavation analysis programmes. However, it should be acknowledged that the wider purposes, roles and objectives of the museum and HER sector will not be fully understood solely through the post-excavation analysis of material from a university training excavation.

Crucially, it must be stressed that the two procedures are, in fact, fundamentally different. Students working from a 'live' excavation, compiling and cross-checking the field records, undertaking basic post-excavation procedures, analysis, publication preparation and the final

boxing, filing and listing of the site finds and records in the archive are indeed learning valuable skills. For them, however, the process moves from actual site to archive, and the records are, in effect, an aide-memoire. For researchers dealing with the records of a former site, the situation is reversed, since they work from the archive to (hopefully) the virtual site, or rather whatever parts of it can be deduced from whatever parts of the record can be understood. Here, the archaeologists are, in effect, documentary researchers. Thus it can be shown that training required for Archive Archaeology Programmes and for Post-Excavation Programmes are quite distinct and do demand different skills.

- 5** The potential of the resources held by those external institutions and the necessary skills and level of understanding to access them is not always easily or effectively demonstrated solely in classroom-based courses.
- 6** It is acknowledged that the teaching of post-excavation analysis is carried out in one form or another in every department. The majority of students learn about the methodologies required to interrogate site records and finds in the context of field projects led by the staff of their respective departments. This approach is clearly beneficial, and results in the dual advantage of students learning about processes while the sites that are the subjects of their study are processed for publication.
- 7** However, in only a few cases are students actively encouraged to work with resources held by other institutions. The reasons for this are numerous. In general, restraints and pressure on staff time often prevent individuals from creating new educational initiatives with local museums and SMR/HER centres. Likewise, over-worked staff at those external institutions often find it difficult to formulate new initiatives with the HE sector.
- 8** Existing relationships between Archaeology departments and museums and HER centres are based largely upon the need of each university department to unite their students with suitable material for dissertation and thesis purposes.
- 9** The museums and HER centres, while recognising that they could use students in teaching programmes to enhance the records of their collections and data sets, tend to accommodate university students in order to satisfy internal access and outreach policies. Although there are exceptions, there are few current initiatives that seek to increase the student cohort's learning experiences within these external institutions.
- 10** In many regions of the country the resources held by museums are accessible and available for study, but only by the informed and dedicated researcher. What is largely lacking are the initiatives and facilities for group visits, demonstrations of how the museum manages its collections and the methodologies required to consult and interrogate archaeological archives and SMR/HER data sets.
- 11** There is general agreement with the Museums Association's recommendations that greater collaboration between museums and the establishment of themed (subject-based) networks (e.g. Archaeology) would bring great benefits and that there would be value in appointing brokers to build relationships and encourage joint working. However such ventures would require significant new resources that cannot be found, currently, within the HE sector. One notable exception here, in the context of postgraduate access, is the AHRC's current Collaborative Doctoral Awards Scheme, which actively promotes PhD research that straddles an HEI and a museum or similar 'external'

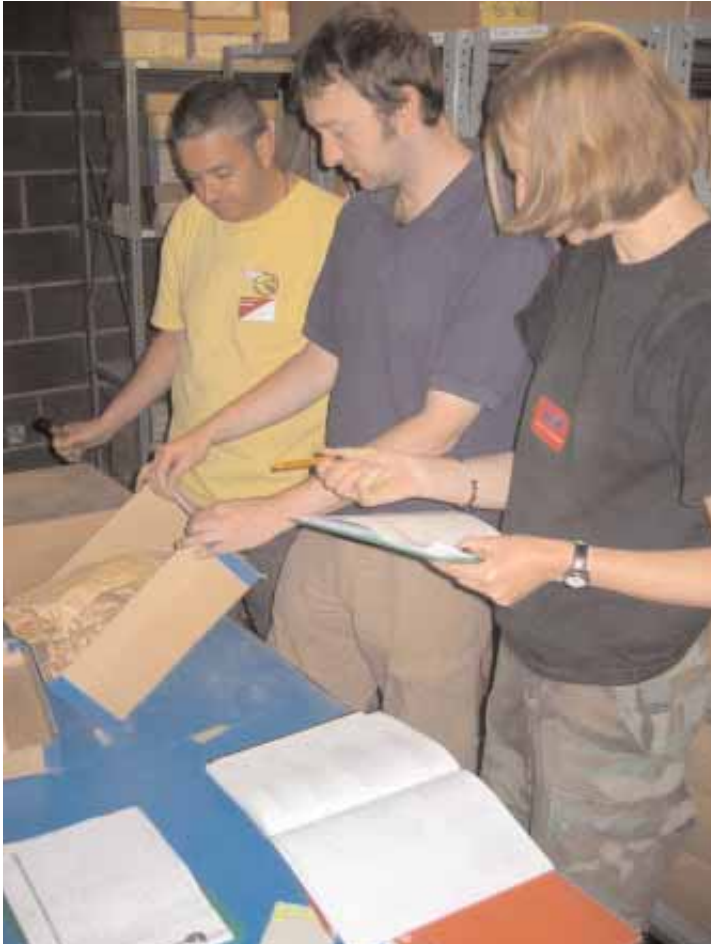
institution. The majority of museums also lack the resources to develop such mechanisms to facilitate interaction between the two sectors.

- 12** A number of university departments find it difficult to rely upon local museum sector resources for their work programmes because of local authority funding problems impacting on museum staffing levels. Some museums have had to adjust their opening times, due to lack of resources, resulting in access policies and timetables that are often incompatible with the needs of university departments.
- 13** In some instances museums are curated by individuals who are not archaeologists and admit to being uncertain as to how to develop their collections for teaching and learning purposes. Access for researchers, unless the material is already well known, is also difficult in these situations.
- 14** The need for museums to justify staff time input into liaising with university departments often requires them to prefer more symbiotic initiatives – especially those where the museum’s collection might be enhanced in some way. Academic enhancement, in the form of dissertations that require relatively uncomplicated access to collections, tends to be the most preferred of interactions.
- 15** Initiatives involving regular formalised collection management enhancement, initially require the teaching of museum and HER centre approaches to the management of archives and historic environment data, and are thus regrettably rare.

The result of many of these issues, either in part or collectively, is that interaction between archaeology departments and external institutions tends to be *ad hoc*, depending to a great extent upon the initiative of individuals within either an archaeology department or a museum. It also relies heavily upon the personal contacts that individuals in both sectors might have. Such networks, of course, are at the core of many successful participation and research initiatives and teaching/learning programmes. They can also stop suddenly when key individuals move on, and thus are hard to build into the requirements of a core curriculum.

Samples of testimonies from these interviews can be found on the AA project website:
(e.g.) <http://www.ucl.ac.uk/archaeology/archive-archaeology/deptsurvey-ph2.htm>

5 Teaching & Learning with Archaeological Archives case studies: the London Pilot Programme



A two-stage pilot project was run by UCL Institute of Archaeology in close collaboration with the Museum of London's Archaeological Archive and Research Centre (LAARC). In the first stage (2005) a trial programme was evaluated with a small group of undergraduates, and in Stage 2, a modified and extended programme was run as a core course for the whole Year 1 intake (2006, 2007).

Stage 1 Pilot Programme

Summary

- Partnership with Museum of London, London Archaeological Archive and Research Centre (LAARC)
- Year 1 undergraduates from the Institute of Archaeology, UCL working on archive enhancement programmes

- Run in 2005 for a four-week period
- Tasks included the enhancing of museum resources while learning about archive components

A group of twenty undergraduate students was recruited to assist in the primary pilot programme of the LAARC course design sessions. The purpose of this pilot was to characterise working in an archive to identify a variety of learning outcomes, as well as to highlight potential problems arising from UCL students making use of third party (i.e. Museum of London) resources and venue.

Each student spent a total of ten days in the archive working on a variety of tasks and exercises. These ranged from traditional post-excavation finds-washing exercises to specific post-excavation processes, for example working with human remains. In addition there was a variety of assessment tasks related to site records and their associated artefactual and environmental finds assemblages.

'The course has allowed me to relate my own experiences on site to how it would be for an archivist or researcher dealing with my finds, and my notes.'

Luisa, student, 2007

'Moreover, the archiving course at LAARC has underlined for me the huge importance in ensuring any excavation work I do is thoroughly recorded, and recorded well: it needs to be understandable and available for future archaeologists to access and comprehend.'

Duncan, student, 2007

'My perception of LAARC now has also caused me to reconsider the method in which I will record information about the excavations I shall partake in this summer. Having seen at first hand how confusing and disorganised some records can be, I am now determined to ensure that mine are clear and concise.'

Emma, student, 2007

'Throughout the course I have often wondered whether I would be able to understand what I had written on a site if I were to come back and look at it in 30 years time.'

Luisa, student, 2007

The programme was preceded by an induction day. This consisted of

- a formal PowerPoint presentation about the role of archives and the political issues governing their preservation and development;
- background introduction and tour of the LAARC, covering all parts of the building and emphasising the nature (i.e. contextualisation) of a publicly-funded archaeological archive compared to, for example, an eclectic 20th-century social history collection;

- an introduction to Health and Safety issues, generally regarding archaeological archives and their use, and specifically about the LAARC.

Students were divided into groups of four in keeping with the LAARC emphasis upon teamwork, mentoring and mutual support throughout each working process. Tasks were handed out with the intention of each task taking approximately two days to complete. Each group would then be rotated to undertake another task in the LAARC. These tasks included, for example;

- sorting documentation
- washing finds
- washing human remains
- exercises in locating material and records from the same site stored in different locations (reconstitution of finds assemblage)
- enhancement of packaging
- enhancement of finds and environmental remains documentation.

Once the initial instructions had been given, each group worked under the supervision of LAARC staff, with their progress monitored by the Archive Archaeology project officer. Upon completion of each task, the group was debriefed and discussion was encouraged. It was suggested that many finds processing exercises, involving the initial washing and cataloguing of finds, were not regarded as a truly archival exercise, since they mirrored tasks given to the students during their on-site field activities.

What was new to them, however, was the ability to delve deeper into the contents of individual site archives, to reorganise them making them more accessible to researchers and to identify material awaiting further study. It was also appreciated that certain generic research questions given during the introduction to each task e.g. identify the earliest assemblage on the site, or discover what material from a specific site remains unpublished, enabled the student to interrogate each archive in a more objective manner. This resulted in an increased awareness that even though research questions can be answered, they are often only answered with certain qualifications, which in turn measure the success or otherwise of the research task. For example a task such as 'Identify the earliest assemblage from the sample site' would result in the identification of specific material initially catalogued as the earliest, together with other associated material that still awaited analysis, and thus could be earlier.

It was further appreciated that, while the students were learning about the components and principles of archiving, they were also helping to enhance the condition of each site archive, thus making it more accessible to future researchers. For example, each finds assemblage reconstitution exercise enabled complete site assemblages to be brought together on one table in the LAARC. This in itself led to an appreciation of what questions could be asked of each assemblage as a whole, the variety of objects in differing materials and environmental remains that such finds group each contained.

Stage 2 Archive Archaeology Workshop development

As a consequence of the evaluations of the pilot project, a much revised course was developed. The basic principles underpinning the new course were that any specific archaeological archive offers the opportunity for a student to identify:

- The significance of current best practices. For example, the examination of even a poorly-prepared archive helps to enforce the need for proper records management at the site level and onwards.
- Past and present post-excavation methodologies. The examination of any site archive in detail raises differences in approach and methodologies by the archaeologists and post-excavation staff who compiled the archive.
- The potential for further research and collection enhancement of a single site archive or a group of archives. Seldom is a full sequence published and often sites have not been published at all. Furthermore, discrepancies in the ordering and presentation of an archive as part of a collection can be identified and corrected.

'Through my time at the LAARC, I have learnt how important organisation is on an archaeological site to provide documents for future generations to use, otherwise the information will be difficult to understand by others.'

Hannah, student, 2007

'The time I have spent in the archive has greatly enhanced my appreciation of the intrinsic worth that accurate archives are to the field of archaeology. From this I will endeavour to complete true and accurate archives and records throughout all of the archaeological fieldwork, which I undertake. Thanks LAARC!'

Richard, student, 2007

'This has also highlighted the important connection that should exist between the trench and the archives and the fact that the excavation doesn't stop with the discovery of bedrock but with the analysis, conservation and storage of all that was found so that the people of the future can take as much from these sites as possible.'

Zoi, student, 2007

In the revised LAARC courses, an induction day is now followed by a three-day workshop, emphasising these points through an intensive examination of specific archives. In effect, a site archive is deconstructed in order that the student can answer certain research questions, both generic and specific. The following summarises the course structure and approach for these courses.

The one-day induction course for all students in Year 1 is led by LAARC staff and comprises

- a formal PowerPoint presentation about the role of archives and the political issues governing their preservation and development;
- background introduction and tour of the LAARC, covering all parts of the building and emphasising the nature (i.e. contextualisation) of a publicly-funded archaeological archive compared to, for example, an eclectic 20th-century social history collection;
- an introduction to Health and Safety issues, generally regarding archaeological archives and their use and specifically about the LAARC.

The three-day workshops consist of prepared exercises using archaeological archives for published sites excavated in the 1970s, one for each group of five students. Each group is given an assignment, adopting the roles of contemporary archaeologists about to excavate an imaginary site adjacent to these 1970s sites. As part of the desktop evaluation exercise for the new site, they are asked to answer two generic questions about the archive:

- 1 Compare and contrast the published account of the site with the archive and assess the state of order and completeness of the latter.
- 2 What recommendations would you make for the improvement of this archive?

They were also asked questions specific to the sites they were working on, such as:

- 1 No mention of post-Roman finds is made in the published report. What information does the archive contain about post-Roman activity on this site?
- 2 'Dark earth' is referred to on this site. Are the records and finds from these enigmatic layers still available for study?
- 3 Are the records and finds for the latest Roman occupation levels available for study?
- 4 Medieval pottery is referred to but not published in full. Does this material and its associated records still survive for study?

In the course of pursuing these questions, the student discovers the different components of the archive, how they are distributed around an archive and the means and methods for interrogating them. They discover the problems with any inadequacies in the way things were recorded and archived, and this strongly reinforces the skills they learn in the field, especially with regard to accurate and orderly record keeping.

Although this format appeared to work well it is not the only method that can be used to emphasise the principles of proper archive collation and study. Other methods currently being employed include a two-hour session using a variety of facsimile document types to re-create a basic archive at Bournemouth University or access to archives (and SMRs/HERS) as integrated into a practical module at Leicester University.

6 Teaching and Learning with Sites & Monument Records: the Bristol pilot programme



This programme was developed by the project team from Bristol University. It enabled students to work with the regional data sets held by Local Authorities in their Historic Environment Record centres (also known as the SMR or Sites & Monument Record centres). An intensive two-week optional Level 2 or 3 course was established for groups of up to 10 students, running after the examination period in May/June. It was delivered in partnership with two HERs, Somerset County Council and Gloucestershire County Council.



Summary

- Partnerships with Somerset County Council and Gloucestershire County Council;
- Part-time degree, undergraduate, postgraduate and CE students working on HER resources;

- Run May-June over 3 years alongside training excavation;
- Task included both enhancing HER resources (e.g. through survey, documentary research), and utilizing them for desk-based research.

Initial contact was made with the HER well in advance of the course to discuss the nature of the project and extent of their commitment in terms of time and resources. It was agreed that the primary focus of the student input would be a structured resource enhancement project that would be of direct benefit to the students, but one that would lead directly to the production of a report of value to the HER.

Two approaches were tried, one targeting a particular area (e.g. a parish), another a specific monument type across the county as a whole (e.g. engineering projects built by Isambard Kingdom Brunel in Somerset). The experience of running the teaching programmes in collaboration with the HER over the three years suggested that the former proved to be the more effective exercise for group work, using desk-based resources. The parish of Wanstrow was studied in 2005, Rode in 2006 and Kingsdon in 2007.

The course included the initial visit to the HER, the development of the research timetable for each of the students, the research itself, a group visit to the parish in question, a mid-way briefing session, and then the final presentations and submission of reports, copies of which were then passed on to the HER. A full range of desk-based resources, from air photographs to historic maps, documentary archives, grey literature reports and other HER data were consulted by students. One major result of the teaching was that students gained a set of skills needed in the professional archaeology and heritage sectors for writing desk-based assessment or conservation plans. Students and tutors also felt that the research skills gained through the HER-focused research provided more general research skills training that would provide an important set of skills for undergraduates and postgraduates in writing their dissertations. The learning outcomes of the HER-based work included the ability to integrate multiple sources of archaeological evidence to produce a detailed account of the archaeology and history of a particular area or landscape. In all cases, the resulting reports led to new data being added to the HER database, and to updated information about the current use/condition of sites through the site visits. The main result of the Bristol pilot project was that teaching through HER partnerships provided an excellent means for delivering focused training in desk-based archaeological research skills.

In addition, a major survey of the seventy-eight SMR/HER offices in England was conducted by means of letters of introduction and questionnaire, supported by follow-up phone calls and emails to clarify individual points of information. The work was undertaken by University of Bristol, and aimed to establish the current level of the relationship between Universities and HERs. The success rate of the responses was a commendable 76%, an indication of the enthusiasm among SMR and HER managers for this exercise.

The survey demonstrated that, in spite of their limited resources and facilities, there was a widely felt need across the SMR/HER sector to develop fruitful and mutually beneficial relationships with university departments. The surprise was that relatively few universities appeared to be aware of the resources available for study on their doorstep. It could be shown that an effective programme could be provided with relatively modest calls on staff time and resources, especially when the opportunities to access data remotely were realised.

7 Teaching and Learning with Museum collections: the Durham Pilot Programme



It is obviously important for archaeology departments to provide opportunities for hands-on study of artefacts, and to show students the very different uses and potential of such assemblages. For convenience, artefact collections may be subdivided into four groups:

Handling collections:

often unstratified material, useful for basic identification;

Reference collections:

for more detailed identification at local or national level;

Museum collections:

for assemblages of particular artefact groups, whether or not they are stratified or even well-provenanced, useful for art-historical or technical studies;

Archaeological archive collections:

for stratified assemblages of associated material from excavated sites, e.g. pit groups, for dating purposes, for detailed statistical work or for social and economic studies.

It is suggested here that there should be a progressive working through of these resources during the period of university study: Handling Collections should be made use of extensively in Year 1 teaching for example, with the other collections being brought into play in 2nd and 3rd year teaching, especially where dissertation work is required, and crucially at graduate level. It is only from the development of progressive study programmes incorporating the handling, identifying and analysis of artefact groups, that the next generation of Finds Specialists will emerge.

This Pilot Programme discussed here was developed at Durham University. It allowed undergraduate coursework to focus on a museum collection of Roman pottery, the Oswald-Plicque collection of Samian ware, held in the Old Fulling Mill Museum of Archaeology in Durham City. An undergraduate Level III unit was developed in collaboration with the Deputy Curator of the Museum and the guidance of the University's Lecturer in Museum Studies. The course accommodated up to 16 students, and considered themes such as the history of the collection, technological aspects of pottery manufacture, the distribution, use and deposition of Samian ware. The focus of the course was the development of a public exhibition in the museum related to the collection, for which the students were directly involved in all stages, either as individuals or through group work. In addition to the exhibition itself, the students also produced a portfolio of the associated practical work, which provided a means of assessing the coursework.

Summary

- Partnership with University Museum and Archive;
- Undergraduate and post-graduate students working on a specific part of the collection;
- Run May-June over 3 years alongside main course and field work programmes;
- Tasks included both enhancing museum resources and improving their access for desk- and web-based research.

Undergraduates were encouraged to make use of the collection in other programmes: for example, as the focus for the Level 3 dissertation, and as the core material for Level 3 'Archaeological Illustration' projects.

The use of such collections in graduate studies was also considered, notably in the *Artefacts Studies* module, in which a chosen artefact is selected, researched, analysed, illustrated and recorded. The results were written up in a 3,000 word report. Once again, the Roman pottery collection provided a useful source of items and themes for study

8 Graduate progression

The emphasis of much of the preceding document has been upon the undergraduate's use of Archive Archaeology resources. It is clear, however, that a number of the recommendations can be carried over to the post-graduate level of teaching and learning. There are, as one should expect, a number of differences between the two groups of students.

Essentially, it is important that the undergraduate's awareness of the issues surrounding Archive Archaeology resources is increased as much as possible. This can, as has been suggested above, be done through simple visits or structured lectures.

The post-graduate student, however, might require a much more detailed training in the use of very specific components of the *ex situ* archaeological resource. Depending upon their chosen subject, this could be in the form of an in-depth analysis of paper site records or the detailed study of very specific categories of artefact. The more detailed this aspect of their study and research becomes, the more likely it is that they would require the mentoring and support of a specialist in their respective field. For example, a student wishing to gain access to digitised animal bone inventories would, of course, access these primarily through the digital officer in the third-party institution but their understanding of the methodology used to compile the data and its interpretation is likely to require access to a specialist in that specific field of study. Similarly, a post-graduate student studying a particular sequence on a site might have need to consult the excavator for clarification of certain points or to test an hypothesis.

The availability of such specialist support, especially over an extended period of time, in order to ensure that the student is gaining the most from their research visits, is a serious problem. Many museums and other institutions have had to contend with the paradox of the need to make their collections fully accessible but often not being able to deliver specialist advice at the same time. This is particularly frustrating for those museums and institutions with specialist archaeological staff. The present day need for the cost of staff time to be carefully calculated with little residual time for visitor support and mentoring means that many post-graduate students simply do not have access to the full range of specialist support that an institution might have at its disposal. Furthermore, some curators do not have archaeological backgrounds and readily admit to finding it difficult handling archaeological enquiries even from the general public, let alone archaeology research students. Unfortunately, there is no simple solution to this problem and any attempt to resolve this pressing issue is beyond the scope of this project.

It is apparent, however, that this interaction between the HE archaeology department and specialist staff in external institutions is starved of funding. This is particularly exacerbated by the fact that the majority of archaeologists and material culture specialists are employed by commercial archaeology units and companies or are freelance. The one notable exception with regard to funding opportunities is the AHRC's current Collaborative Doctoral Awards Scheme mentioned above. This does actively promote PhD research that straddles an HEI and a museum or similar 'external' institution. Such awards encourage and establish links that can have benefit to both collaborating partners, providing access to resources and materials, knowledge and expertise that may not otherwise have been available.

9 Conclusion and Summary Recommendations



While many departments throughout the country have active and successful programmes covering the teaching of post-excavation analysis and methodologies, it is generally acknowledged that there is an under-use of the external resources in museum archaeological collections, archaeological archives and SMR/HER centres.

Because there is considerable variability in the amount of time each department expects each student to take part in fieldwork – ranging from ten to seventy days – the actual amount of time to be set aside for the presentation of Archive Archaeology components cannot be prescribed precisely. Instead, this report suggests the key elements of Archive Archaeology that the student should be made aware of and should encounter during their period of undergraduate study.

In general, there is the need to develop good and better practice in undergraduate programmes in areas related to the use of resources held by external institutions throughout the country. This, of course, requires a balance to be made between the accessibility of these resources and the time constraints of the existing curriculum. It is important to note that many traditional fieldwork exercises, such as surveying and excavation, are compulsory elements in the curriculum. Archive archaeology – and even some post-excavation processes – are currently NOT taught as core elements, or are only covered, where relevant, during the course of student work for dissertation purposes. As a result of the research and discussions held over the last three years, the following recommendations are made:

1 Archive Archaeology to be taught as a core element in the curriculum

The primary recommendation is that Archive Archaeology is made a compulsory, core element in the teaching and learning programme of each department. Every student should be made aware of the resources held by external institutions, including matters related to their creation and curation. As a bare minimum, this could be covered in a formal lecture or presentation in the classroom. Alternatively, the student could be physically involved in an activity related to these resources, especially one using the external institution as a venue. The increased familiarisation will benefit the student in a number of areas in the course of their undergraduate studies, from a simple appreciation of record-keeping while engaged in field work, to becoming aware to the availability of material for their own research purposes. Exposure to the workings of external institutions engaged in the management of heritage-related resources will also increase the student's awareness of other careers in the heritage sector.

'The time at LAARC has been well spent, and an extremely valuable experience in how important it is to record well when involved in an excavation. This seems almost obvious to modern day students of archaeology, but cannot be over-emphasised. An appreciation of the needs of future archaeologists wanting to, perhaps, re-evaluate past works will lead me certainly to pay close attention to recording. This supplements the teaching we have at the Institute of Archaeology.'

Bryn, student, 2007

2 Universities should formally engage with external agencies holding relevant collections

Formal relationships between university departments and local museums, archive centres, HER centres etc should be established. This is to promote the use of these resources for work experience and placement opportunities and identify suitable research topics. It should also be used as a means to increase the general awareness of the resources themselves and the tools and skills required to successfully access them and to exploit them.

Nationally, the increased use of these external resources by the universities will enhance the standing of the respective museum or HER centre, since these agencies have a duty to demonstrate that their collections are accessible and are being used. This duty might be directly linked with their funding agreements.

It is in the student's best interests that archaeology departments establish formal arrangements to access those external collections. The benefits range from increasing the student's repertoire of transferable skills to increasing their awareness of the availability of research material for use in their subsequent studies – including progression to graduate level.

3 Archive Archaeology teaching should be introduced in Year 1

The teaching of subject matter related to Archive Archaeology, the resources held by museums and SMR/HER centres and their use for curation, study and research, should appear early in the curriculum. Where possible, this should be in the form of a structured compulsory element, starting perhaps just with handling collection sessions. Subsequent exposure to the complexity of field records and the variety of finds will increase the student's appreciation of the processes to be learned in the field.

Where time is available within the existing fieldwork element, working within an Archive Archaeology environment should be a compulsory component of fieldwork. This can be in the form of work placements or experience exercises or formally taught courses within the external institution. (see e.g. the Pilot Programmes).

4 Archive Archaeology teaching should be timed to precede work on the 'Training Excavation'

Any teaching of material related to Archive Archaeology should preferably take place before the student takes part in any field survey or excavation activities. Exposure to these resources can significantly increase the student's appreciation of the processes and methods they learn in the field, from the need for detailed record keeping to the ability to recognise certain types of artefact. Experience shows that the student who has spent time processing assemblages of flint flakes will make a much more observant (and therefore productive) field walker; the student who has spent time processing, cataloging and reboxing human skeletal remains will make a much more competent and confident cemetery excavator; the student who has written up a site (or part of a site) simply using somebody else's field notes from the archive will make a far more diligent and effective record of the next excavation they work on.

5 Further Archive Archaeology teaching should be timed to facilitate dissertation research

Access to external resources, and an increased awareness of the research potential of these resources for dissertation purposes, should be encouraged early enough in the curriculum to provide a platform for the student to develop their own ideas and relationship, if possible, with the external institution. This in itself would relieve the tutor of pressure during the later stages of a student's course to develop research ideas for dissertation purposes.

10 Further Reading

Archives Task Force (2004), *Listening to the Past: Speaking to the Future: Report of the Archives Task Force*, Museums, Libraries and Archives Council

Bott V, (2003), *Access to Archaeological Archives: A study for Resource and the Archaeological Archives Forum*, Archaeological Archives Forum

Brown D, (2007), *Archaeological Archives, a guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum

Carter, S. & Robertson, A. (2002), *National Occupational Standards for Archaeological Practice*, Institute of Field Archaeologists

Merriman N, and Swain H, (1999), 'Archaeological archives: serving the public interest?' *European Journal of Archaeology*, Vol. 2, No. 2: 249-267

Museums Association (2005), *Collections for the Future: Report of a Museums Association Inquiry*, Museums Association

National Vocational Qualifications (1994), *National Vocational Qualifications in Environmental Conservation: Archaeology and Field Archaeology*, COSQUEC

Quality Assurance Agency for Higher Education (2007), *Archaeology 2007 QAA*

Swain H, (1998), *A Survey of Archaeological Archives in England*, English Heritage and DCMS

Swain H, (2007), *An Introduction to Museum Archaeology* Cambridge University Press



Appendix A

On-line documents

First survey evaluation data

(e.g.) <http://www.ucl.ac.uk/archaeology/archive-archaeology/deptsurvey-ph1.htm>

Second survey evaluation data

(e.g.) <http://www.ucl.ac.uk/archaeology/archive-archaeology/deptsurvey-ph2.htm>

Durham project resources and evaluation data

(e.g.) <http://www.ucl.ac.uk/archaeology/archive-archaeology/pilot/durham.htm>

Bristol project resources and evaluation data

(e.g.) <http://www.ucl.ac.uk/archaeology/archive-archaeology/pilot/bristol.htm>

London project resources and evaluation data

(e.g.) <http://www.ucl.ac.uk/archaeology/archive-archaeology/pilot/london.htm>

Appendix B

NOS, NVQ and QAA standards

Relevant information from the National Occupational Standards and the NVQ can be added to the learning outcomes identified below (Appendix C). The latter set of standards has been superseded by the former, but is included to show the range of skills expected within the profession. Although these are not specifically 'learning outcomes' in themselves, they illustrate the professional standards that archaeological fieldwork training is intended to teach. Much of the work in an archive requires the ability to make an assessment of various techniques employed in the creation of an individual archive in order to understand its contents further, hence the prefix phrase used below, especially with the NVQ standards, "To understand whether ...".

National Occupational Standards

Many of these standards apply to work in the field, on excavations. However, it is evident that some also apply to work in the archive as a fieldwork experience. For example:

Performance required (Carter & Robertson 2002, 42)

- Contributing to an investigation efficiently and systematically
- Identifying and accurately recording relevant features
- Making observations and measurements that are accurate and fully meet specified data requirements
- Recording investigation data clearly and accurately and securing it securely for later analysis
- Adapting work procedures and practices if instructed to allow for different circumstances and conditions
- Consulting with senior managers when uncertain about any aspect of the investigation or own responsibilities for action
- Maintaining the integrity of the site, observing safe working practices and ensuring disruption to other activities on the site is kept to a minimum
- Using equipment appropriately, maintaining it in operational order and storing it securely.

Required skills (Carter & Robertson 2002, 43)

- The safe and appropriate use of tools
- Lifting and handling techniques
- Techniques applicable to intrusive archaeological investigations
- The use of forms for recording and of the recording materials.

NVQ archaeology standards

Similarly, many NVQ standards apply to work carried out in the field, but they can also be transferred into the enclosed workplace. For example:

Standards related to surface collection techniques (NVQ 1994, 12)

- (To understand whether) the collection process is consistent with the requirements of the specified method, and is complete for the specified area/location
- (To understand whether) archaeological material has been distinguished validly from non-archaeological material, and its distribution and quantity accurately defined and recorded
- Where there appear to be unexpected or unusual archaeological features or material, (to understand whether) the location is recorded and appropriate people informed
- (To understand whether) records relating to surface collection are accurate, complete and up to date.

Standards related to the excavation of a site (NVQ 1994, 18)

- (To understand whether) the removal of archaeological material was systematic and at a speed consistent with specified requirements, and involved equipment and techniques consistent with the expected and revealed nature of site and deposits
- (To understand whether) the identification of stratigraphic and other features and changes is accurate and exhaustive
- (To understand whether) the discrimination between archaeological material and non-archaeological material was accurate
- To confirm that the storage of recovered material is as specified for their location.

Standards related to the creation and management of the primary record (NVQ 1994, 19)

- (To understand whether) the identification and classification of archaeological deposits are accurate and in terms of specified characteristics
- (To understand whether) the recorded primary data makes use of conventions and style required by the project, is of the level and accuracy of detail, and is complete enough to permit reporting of the relevant part of the excavation without further investigation
- (To understand) where primary data is insufficient, whether the nature of missing data is noted
- (To understand whether) the conventions and style used in the preparation of records are appropriate for the destination of records
- (To understand whether) records of excavation method and progress are complete and accurate, and include unusual occurrences and necessary adaptations in procedure.

Standards related to the cataloguing of archaeological material (NVQ 1994, 20)

- (To understand whether) catalogue entries for finds (deposited) are up to date and accurate
- (To understand whether) numbering, description and classification of finds are systematic, use conventions required by the project, and cover all required details
- (To understand whether) where certain details are unknown, or where finds are of an exceptional or unknown nature, specialists have been consulted.

Standards related to the preparation of site plans, sections and elevation drawings

(NVQ 1994, 35)

- (To understand whether) individual drawings are clean and accurate and represent views of sites and structures that convey the basic information for each view
- (To understand whether) sets of drawings taken together convey complete information and allow further information, interpretation and comparison with similar and related sites and structures
- (To understand whether) drawings of a single site or structure are effectively cross-referenced and inter-related
- (To understand) where data from different sources is inconsistent, whether differences are resolved by discussion and further investigation.

Archaeology Benchmarks

Perhaps of more direct significance and more familiar to staff in the HE sector will be the QAA Archaeology Benchmark knowledge expectations and skill acquisitions. These are repeated in full here since Archive Archaeology has associations with the majority of them.

Subject knowledge and understanding

- knowledge and understanding of the origins and development of archaeology as a discipline
- understanding of the intellectual vitality of archaeology, its theoretical basis, current debates over approaches to interpretation, and archaeology's relationship to other disciplines
- appreciation of the historical, social, cultural, ethical, and political contexts of archaeological research, management, interpretation, and presentation
- familiarity with the diverse sources of evidence used by archaeologists (including excavated, documentary, representational, observational, artefactual, environmental and scientific)
- familiarity with the basic concepts which underpin the subject (such as archaeological uses of assemblage, culture and style; approaches to typology, taxonomy and ancient technology; stratigraphic context; temporality; and landscape)
- understanding of the causes of variation in the reliability of different classes of evidence from archaeological contexts (such as taphonomy; cultural and non-cultural transformations; depositional processes; and recovery procedures)

- understanding of the relationship between the practice of archaeology and the institutional context of that practice
- knowledge of the legal and ethical frameworks for research and professional practice in archaeology
- appreciation of the importance of the recovery of primary data and new information through practical experience in the field or through collections-based, records-based, or artefact-based study
- critical awareness of methodologies for quantifying, analysing and interpreting primary data
- understanding of the concepts and application of scientific methods used in collecting, analysing and interpreting archaeological data
- interpret scientific information, integrating chronometric, environmental and materials science data with archaeological models
- understanding of the use of analogy and experiment in archaeological analysis
- broad and comparative knowledge of the archaeology of a number of geographical regions
- broad and comparative knowledge of the archaeology of a number of chronological periods
- from specialised investigation, deep understanding of one or more distinct classes of archaeological material
- appreciation of the fragile and non-renewable nature of the archaeological resource and the need for sustainable approaches to its use and conservation.

Subject-specific skills

As appropriate to the breadth and depth of the programme being pursued, students will be equipped to:

- draw down and apply appropriate scholarly, theoretical and scientific principles and concepts to archaeological problems
- practise core fieldwork techniques of identification, surveying, recording, excavation and sampling
- practise core post-excavation/post-survey techniques such as stratigraphic analysis of field records, phasing and data archiving
- practise core laboratory techniques of recording, measurement, analysis and interpretation of archaeological material
- discover and recognise the archaeological significance of material remains and landscapes
- interpret spatial data, integrating theoretical models, traces surviving in present- day landscapes and excavation data
- observe and describe different classes of primary archaeological data, and objectively record their characteristics

- select and apply appropriate statistical and numerical techniques to process archaeological data, recognising the potential and limitations of such techniques.

Generic skills

Archaeology graduates will also be equipped with general and widely applicable skills, including the ability to:

- assemble coherent research/project designs
- marshal and critically appraise other people's arguments
- produce logical and structured arguments supported by relevant evidence
- present effective oral presentations for different kinds of audiences
- prepare effective written communications for different readerships
- make effective and appropriate use of relevant IT
- make critical and effective use of information retrieval skills using paper-based and electronic resources
- make effective and appropriate forms of visual presentation
- plan, design, execute and document a programme of primary research, working independently
- collaborate effectively in a team via experience of working in a group, for example, through fieldwork, laboratory and/or project work
- appreciate the importance of health and safety procedures and responsibilities (both personal and with regard to others) in the field and the laboratory
- appreciate and be sensitive to different cultures, and deal with unfamiliar situations
- evaluate critically one's own and others' opinions, from an appreciation of the practice of archaeology in its changing theoretical, methodological, professional, ethical, and social contexts
- engage with relevant aspects of current broad instrumentalist agendas such as global perspectives, employability, enterprise, and creativity.

Appendix C

Learning new *ex situ* fieldwork skills

Learning outcomes

Based upon internal evaluations and studies by LAARC staff between 2000 and 2004 that characterised the tasks conducted by users within the archive, and supported by evaluation of the Archive Archaeology Pilot Projects (see below), it was demonstrated that there exist a number of learning outcomes for someone working with an *ex situ* resource. These can be summarised as follows:

Excavation techniques

- To apply theoretical skills in excavation practice
- To become familiar with the advantages and disadvantages of a variety of excavation recording methods
- To become familiar with and undertake a range of practical tasks related to the interrogation of archaeological archives
- To become familiar with the use of archaeological archives.

Planning, recording and surveying

- To become familiar with the methods of producing accurate and understandable archaeological plans and section drawings
- To understand the methodology and effectiveness of the proper recording of survey data.

Artefacts and environmental remains

- To become familiar with and undertake methods of handling archaeological artefacts and environmental remains
- To understand the principals of on-site and post-excavation recording processes and procedures.

Transferable skills

Working in museum stores and archive and HER research rooms involves numerous skills, many of which are not specific to archaeology. There are also crossovers with a number of current (i.e. 2008) vocational skills and tasks (see appendix 2). In the course of collection management tasks, research evaluations, which are the most suitable work programmes for undergraduate students (see below) they will gain experience in:

Team working:

- appreciate its personal demands
- work within a hierarchical structure
- co-operate and learn from peers

- group discussion, asking pertinent questions and responding to comments
- listen and share knowledge effectively
- reflect on self-progress in a group environment
- manage own work as part of a team.

Additional individual skills include:

- practical
- observational
- analytical and graphical
- data collection and management
- sampling strategies
- numerical
- dealing with digital data
- problem solving
- recognition, description and reporting
- critical thinking
- independent learning and working
- problem solving
- health and Safety
- accuracy
- written and oral communication
- managing time efficiently and effectively in both practical and intellectual situations
- capacity and desire to learn in both subject and non-subject areas
- experience of a professional environment and maintaining a positive and professional attitude to colleagues and supervisors
- precision and cautiousness in the assessment of evidence, evaluating what it can and cannot say
- apply an understanding of relevant archaeological concepts and methods in non-archaeological situations
- research and writing skills – tested by assessment methods (e.g. fieldwork report, diary, portfolio).



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